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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,571	10/18/2001	Kevin Kliland	032292-027	5028

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EXAMINER

TANG, KAREN C

ART UNIT PAPER NUMBER

2151

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,571

Applicant(s)

KLILAND ET AL.

Examiner

Karen C. Tang

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinozaki et al hereinafter Shinozaki (US 2001/0027107) in view of Douglas E. Comer "Internet working with TCP/IP Principle, Protocols, and Architectures".

1. Referring to Claim 1, Shinozaki discloses method for providing high availability and redundancy in communication between an endpoint at a terminating side and an endpoint at an originating side in a packet switched network, said network being virtually divided into horizontal layers comprising a number of nodes, wherein a plurality of said nodes are associated with said terminating side and a plurality of said nodes are associated with said originating side, nodes within the same layer associated with said the same side said to be peers and holding relevant; information about each other, each node within each layer(s), in addition the endpoints, being connected to least all peers of adjacent layers

Art Unit: 2151

within the same side respectively, the method comprising the following steps, executed at each side respectively prior to said communication:

sending a first message vertically by the endpoint associated with the current side from one of said nodes within the horizontal layer adjacent to said endpoint to one of said nodes within higher horizontal layer passing through one of said nodes within each intermediate layers (Examiner interprets packet is equivalent of messages, refer to 0012-0015, 0017);

upon receiving said first message, storing said relevant information for each passed node and its peers included in said first message in said node within the higher layer (refer to 0040-0061);

in response to said first message, sending second message in the opposite direction from said node within the higher layer to said endpoint passing through said nodes of said intermediate layers, said second message always containing the relevant information of the previously passed node and its peers (0041-0058);

and in each node and in the endpoint, storing the relevant information of the previously passed node and its peers when receiving said second message (refer to 0065-0071).

Shinozaki discloses each nodes pass its information to the next layer (refer to 0016-0020, 0040-0050)

Shinozaki does not expressly indicate for each passed node, adding relevant information concerning current node and its peers to said first message.

Art Unit: 2151

Comer discloses adding relevant information concerning current node and its peers to said first message (refer to Pg 101-102)

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Shinozaki and Comer because the environments of both inventions are related.

The suggestion/motivation is that Shinozaki discloses the use of Internet via mobile communication, which requires utilizing the TCP/IP technology that requires the use of OCI layers technologies to transfer information and would provides transmit proper information to the users.

2. Referring to Claim 2, Shinozaki discloses wherein the step of sending a first message by the endpoint relates to user registration, and the step of sending a second message from said node within the higher layer relates to confirmation thereto (refer to 0005, 0023, 0038-0058, and refer to Fig 11).

3. Referring to Claim 3, Shinozaki discloses wherein said relevant information one or more addresses, and said relevant information provided from said first message stored in the higher layer is an address list of the peers for each layer (refer to Fig 2, 4, 5, 6 and 7).

4. Referring to Claim 8, Shinozaki discloses wherein more than one of said addresses may be associated with a single node (refer to Fig 4).

Art Unit: 2151

5. Referring to Claim 9, Shinozaki discloses wherein said originating side and said terminating side are connected to each other through a redundant coupling between the user nodes and the network nodes at each side (refer to 0038 – 0041-0056).

6. Referring to Claim 10, Shinozaki discloses utilizing the stored addresses of the peers of the next layer provided by said second message for routing packets or other messages involved in said communication from a current node in the vertical direction away from associated endpoint (refer to 0040).

7. Referring to Claim 11, Shinozaki discloses utilizing the address list stored in said higher layer for routing packets other messages involved in said communication in the vertical direction towards associated endpoint by adding said address list to said packets or other messages when passing said higher layer and, thereby, finding a proper route to said endpoint (refer to 0053).

8. Referring to Claim 12, Shinozaki discloses if a node to which one of said packets or messages otherwise would have been routed is down, routing said packet or message to one of the peers of said node (refer to 0053-0055).

9. Referring to Claim 13, Shinozaki discloses wherein said communication initiates some kind of service (refer to 0003-0008).

Art Unit: 2151

10. Referring to Claim 14, Shinozaki discloses wherein said communication initiates some kind of service (refer to 0003 - 0008) wherein the service is a call (refer to 0001-0015, it is inherent that the mobile station makes call and initiate the calls.).

11. Referring to Claim 15, Shinozaki discloses wherein the service is a call set-up (it is inherent that to transfer packet in the mobile wireless communication is as equivalent to the call set-up, refer to 0003-0022).

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinozaki et al hereinafter Shinozaki (US 2001/0027107) in view of Douglas E. Comer "Internet working with TCP/IP Principle, Protocols, and Architectures" in further view of Nusbickel (6,868,543).

1. Referring to Claim 4, Shinozaki discloses wherein said horizontal layers include an access layer comprising access nodes handling access specific services, a network layer comprising network nodes handling routing and network Quality of Service, and a service layer comprising service nodes for handling service specific events, said horizontal layers arranged in the above-mentioned order (L-PTE is the access layer, and service layer is the GPTE layer, refer to 0038-0041 and H-PTE1 is the network layer that handling the routing). Shinozaki does not expressly indicate utilizing the transit layer which traversing the firewall and user layer utilizing the user registration.

Art Unit: 2151

Comer discloses utilizing the transit layer and user layer utilizing the user registration (page 182 and 184).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate Shinozaki and Comer's invention, because both are disclose materials within the same environment.

The suggestion/motivation is that Shinozaki discloses the use of Internet via mobile communication, which requires utilizing the TCP/IP technology that requires the use of OCI layers technologies to transfer information.

Neither Shinozaki nor Comer expressly indicate the firewall in the transit layer.

Nusbickel discloses the uses of firewall in the transit layer (refer to Col 5 and Col 6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate Shinozaki and Comer and Nusbickel invention, because both are disclose materials within the same environment.

The suggestion/motivation is that Shinozaki discloses the use of Internet via mobile communication, which requires utilizing the TCP/IP technology that requires the use of OCI layers technologies to transfer information and would provides transmit proper information to the users.

2. Referring to Claim 5, Shinozaki discloses wherein said access layer is the lowest one and adjacent to the endpoint, and said service layer is the highest one (L-PTE is the access layer, and service layer is the GPTE layer, refer to 0038-0041).

Art Unit: 2151

3. Referring to Claim 6, Shinozaki discloses the use of hierarchical layers (refer to Fig 4-6).

Comer discloses utilizing the transit layer and user layer utilizing the user registration (page 182 and 184).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate Shinozaki and Comer's invention, because both are disclose materials within the same environment.

The suggestion/motivation is that Shinozaki discloses the use of Internet via mobile communication, which requires utilizing the TCP/IP technology that requires the use of OCI layers technologies to transfer information.

4. Referring to Claim 7, Shinozaki discloses wherein there are at least two peers per layer at each side (refer to Fig 1, 2 and 0038-0044).

Conclusion

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571)272-3939. The fax

Art Unit: 2151

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KT
Karen Tang
6/30/05


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER